

REMARKS

The Office Action dated March 11, 2009 has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claim 8 has been amended to more particularly point out and distinctly claim the subject matter of the invention. Claims 9, 10, and 12 have been cancelled without prejudice and/or disclaimer. New claim 45 has been added to recite features similar to claims 8 and 10. No new matter is believed to have been added. Claims 1-8, 11, and 13-45 are currently pending and are respectfully submitted for consideration.

Applicants would like to thank the Examiner for indicating the allowability of claims 1-7, 11, and 13-44.

Reconsideration and withdrawal of the objections and rejections is respectfully requested in light of the following remarks.

Objection to the Claims

Claims 9 and 10 were objected to for being dependent upon a rejected base claim, but would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims. However, this objection is moot, because claims 9 and 10 have been cancelled without prejudice and/or disclaimer.

Objection to the Drawings

The replacement drawings filed on January 12, 2009 were objected to for the following reasons:

- a. In Fig. 1, the lead line for reference numeral 22 allegedly fails to lead to the inner member;
- b. Reference character R is used to indicate a center of curvature in Fig. 2 and reused to identify a quantity in a ration at the last sentence of the paragraph at page 40, line 6; and
- c. Reference numerals 16 & 24 are used in Fig. 20 to identify features and then reused to identify modifications of those features in Fig. 23.

Item (a) is respectfully traversed for at least the following reasons. Replacement Fig. 1 (submitted January 12, 2009) illustrates a constant velocity joint 10 according an embodiment of the invention. The constant velocity joint 10 includes a bottomed cylindrical outer cup (outer member) 16 that is integrally joined to an end of a first shaft 12. See Specification, page 21, lines 16-18. The outer member 16 has an opening 14 that opens away from the first 12. See Specification, page 21, lines 18-19. The constant velocity joint 10 also includes an inner member 22 fixed to an end of a second shaft 18 and housed in the outer cup 16. See Specification, page 21, lines 19-21.

In Fig. 1, the lead line of reference numeral 22 is clearly illustrated to lead to the inner member 22, which is fixed to an end of a second shaft 18 and housed in the outer

cup 16. If the Office continues to assume that reference numeral 22 fails to lead to the inner member, Applicants respectfully request that the Office contact the undersigned in order to direct the Office where the lead line for numeral 22 leads. Otherwise, Applicants respectfully request that the objection withdraw be withdrawn.

Item (b) is respectfully traversed for at least the following reasons. Reference character **R** in Fig. 2 is used to illustrate a common center of curvature. See Specification, page 24, lines 5-13. Turning to Fig. 23, nowhere is reference character **R** illustrated. In fact, Fig. 23 illustrates reference character **R_w**. Reference character **R_w** in Fig. 23 is used to illustrate that the ratio (R/N) of the radius **R_w** of curvature to the diameter (**N**) of the balls 28 is set to a value in the range of $0.23 \leq R/N \leq 0.45$. See amended Specification (submitted January 12, 2009), page 40, lines 12-14. Therefore, Applicants respectfully request that this objection be withdrawn.

Item (c) is respectfully traversed for at least the following reasons. Fig. 20 illustrates that the outer member 16 has an inside-diameter surface 24 having six first guide grooves 26a through 26f. See Specification, page 39, lines 10-12. The six first guide grooves 26a through 26f extend in the axial direction indicated by arrow x and are angularly spaced from each other by 60 degrees around the axis thereof. See Specification, page 39, lines 12-14.

In Fig. 23, each of the first guide grooves 26a through 26f and the second guide grooves 32a through 32f have only a curved region extending in the longitudinal

direction. See amended Specification (submitted January 12, 2009), page 42, line 1-4. The amended specification clearly describes that Fig. 23 illustrates an alternative embodiment of a constant velocity joint 10' with similar features as those illustrated in Figs. 1-22.

The outer member 16 and the inside-diameter surface 24 in Fig. 23 are not used to identify modifications of Fig. 20. The only difference in Fig. 23 is that each of the first guide grooves 26a through 26f and the second guide grooves 32a through 32f have only a curved region extending in the longitudinal direction. Accordingly, Applicants respectfully request that the objection is withdrawn.

Accordingly, Applicants respectfully request that the objections to the drawings be withdrawn. If the Office has any further concerns regarding these drawings, Applicants request that the Office contact the undersigned by telephone for further clarification.

Rejections under 35 U.S.C. § 102

Claim 8 was rejected under 35 U.S.C. § 102(b) as being anticipated by Miller et al. ("Rzeppa Universal Joints"). The Office Action asserted that Miller et al. discloses all of the elements recited in claim 8.

However, Applicants respectfully submit that the allowable features of claim 9 have been incorporated into claim 8 to recite, in part,

wherein a spherical clearance established as a sum of a difference between an outer member inner-spherical-surface diameter which is a diameter of an

inside-diameter surface of said outer member and a retainer outer-spherical-surface diameter which is a diameter of an outer surface of said retainer, and a difference between a retainer inner-spherical-surface diameter which is a diameter of an inner surface of said retainer and an inner ring outer-spherical-surface diameter which is a diameter of an outer surface of said inner ring is set in a range from 50 to 200 μm in accordance with the following expression:

$$50 \mu\text{m} \leq \{(\text{outer member inner-spherical-surface diameter}) - (\text{retainer outer-spherical-surface diameter})\} + \{(\text{retainer inner-spherical-surface diameter}) - (\text{inner ring outer-spherical-surface diameter})\} \leq 200 \mu\text{m}.$$

Since amended claim 8 recites allowable subject matter, Applicants respectfully request that the rejection of claim 8 be withdrawn and this claim be allowed.

Claims 8 and 12 were rejected under 35 U.S.C. § 102(b) as being anticipated by Thomas (U.S. Patent Publication No. 2003/0054893). The Office Action asserted that Thomas discloses all of the elements recited in claims 8 and 12. However, the rejection of claim 12 is moot, because claim 12 has been cancelled without prejudice and/or disclaimer.

Regarding claim 8, the allowable features of claim 9 have been incorporated into claim 8 to recite, in part,

wherein a spherical clearance established as a sum of a difference between an outer member inner-spherical-surface diameter which is a diameter of an inside-diameter surface of said outer member and a retainer outer-spherical-surface diameter which is a diameter of an outer surface of said retainer, and a difference between a retainer inner-spherical-surface diameter which is a diameter of an inner surface of said retainer and an inner ring outer-spherical-surface diameter which is a diameter of an outer surface of said inner ring is set in a range from 50 to 200 μm in accordance with the following expression:

$$50 \text{ } \mu\text{m} \leq \{(\text{outer member inner-spherical-surface diameter}) - (\text{retainer outer-spherical-surface diameter})\} + \{(\text{retainer inner-spherical-surface diameter}) - (\text{inner ring outer-spherical-surface diameter})\} \leq 200 \text{ } \mu\text{m}.$$

Because claim 8, as amended, recites allowable subject matter, Applicants respectfully requests that the rejection of claim 8 be withdrawn and this claim be allowed.

New Claim

New claim 45 has been added to recite features from claim 8 and allowable features from claim 10. Specifically, new claim 45 has been added to recite, in part, “wherein each of said retaining windows of the retainer has a transverse center which is offset from a center of spherical outer and inner surfaces of said retainer in an axial direction of the retainer by a distance ranging from 20 to 100 μm .” Since claim 45 recites allowable subject matter, Applicants respectfully request that this claim be allowed.

Conclusion

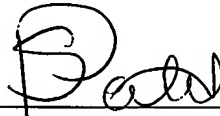
For at least the reasons discussed above, Applicants respectfully submit that none of the cited references, whether considered alone or in combination, disclose, either expressly, implicitly or inherently, all of the elements of the claimed invention. These distinctions are more than sufficient to render the claimed invention unanticipated and

unobvious. It is therefore respectfully requested that all of claims 1-8, 11, and 13-45 be allowed, and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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